

SUPERCONDUCTIVE COIL WITH PERMANENT CURRENT SWITCH AND ITS MANUFACTURING METHOD

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- **European:**

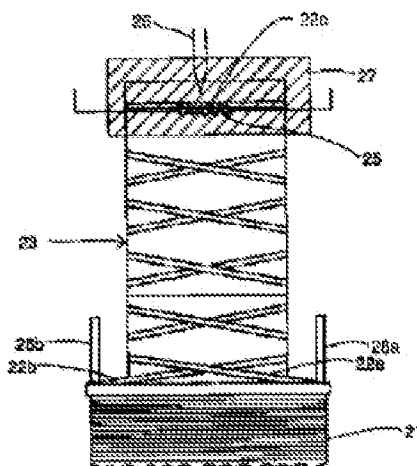
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Abstract of JP10027928

PROBLEM TO BE SOLVED: To make feasible of the operation in permanent current mode by a method wherein oxide superconductive wire rods comprising a superconductive coil and a permanent current switch are junctioned each other by mutually diffusion-junctioning with stabilizing materials. **SOLUTION:** A heater 25 and a thermo-couple 26 are provided near a wire rod junction 22c to be covered with an epoxy resin layer 27. Next, electrodes 28a and 28b for feeding current are formed on a solenoid coil 21. The part of oxide superconductive wire rod heated by a heater 25 fills the role of a permanent current switch for the solenoid coil 21. Next, the oxide superconductive wire rod on the part filling the role of the permanent switch is transferred to constant conductive state so as to feed current to the solenoid 21 from a power supply through the intermediary of the electrodes 28a and 28b. When the solenoid coil 21 is excited, the heating by the heater 25 is stopped to return the oxide superconductor on the switch part to the superconductive state. Through these procedures, the superconductive coil can be stably actuated in the permanent current mode.



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